Dear [Name]: [s.30(1)]

Re: Your request for access to information under Part II of the Access to Information and Protection of Privacy Act (the Act) [Our File #: HCS/003/2014]

On January 21, 2014, the Department of Health and Community Services received your request for access to the following records/information:

“A copy of any and all assessments completed on PET scanners completed for or used by government in making the decision to provide PET services to the province of Newfoundland and Labrador.

Please do not provide any information previously published by the Government of Newfoundland and Labrador.”

(Our file HCS/003/2014)

Also on January 21, 2014, the Department of Health and Community Services received your request for access to the following records/information:

- “A copy of all documents used to justify the decision not to place a radiation unit in the new Corner Brook hospital
- Financial analysis of the decision not to place the radiation unit in the new Corner Brook hospital”

(Our file HCS/005/2014)

On February 4, 2014, the Department wrote to notify you that, with the approval of the Information and Privacy Commissioner, it was extending the 30-day time limit for responding to your requests for an additional 30 days. The Department advised at that time that it expected to respond to your requests by or before March 21, 2014.
On February 5, 2014, the Department contacted you by telephone and confirmed that the scope of your request set out in HCS/005/2014, above, was to be for “summary information” or “summary material” used to justify the decision not to place a radiation unit in the new Corner Brook hospital.

On March 10, 2014, the Department contacted you by telephone and confirmed that the two above requests would be combined into one request, our file number HCS/003/2014. HCS/005/2014 was cancelled. At that time you also indicated that your request set out in HCS/003/2014, above, was to be for “summary information” or “summary material” related to any and all assessments completed on PET scanners completed for or used by government in making the decision to provide PET services to the province of Newfoundland and Labrador.

On March 11, 2014, the Department wrote to you to confirm that the two above requests would be combined into one request, our file number HCS/003/2014.

The Department has reviewed your request in the context of the Act. I am pleased to inform you that access to these records is granted. Please find enclosed copies of documents prepared in response to your request.

Please note that the financial analysis on the decision regarding the placement of the radiation unit in the Corner Brook hospital may be found in the item identified as “Appendix F: Feasibility Analysis of PET/CT and LINAC at the WMRH”. This document was an appendix to the Master Program prepared by Stantec, the consultant group hired to complete the Master Program and Functional Plan for the project. This material begins at page 107 of the attached records.

On page 21 of the materials, there is a line that reads “Only one site in Canada (SSM) with a single LINAC machine”. Please note that the municipality of Peterborough, Ontario opened a single LINAC machine site in July, 2013. Please also note that the page numbering for item 3 of the attached records (“PET/CT System Planning Considerations: presentation made by Dr. George Mawko, Chief Physicist with the PET Program in Halifax, to the HCS PET/CT Steering Committee”) is non-consecutive, and was received by the Department in that format.

Section 43 of the Act provides that you may ask the Information and Privacy Commissioner to review the processing of your access request or you may appeal to the Supreme Court Trial Division. A request to the Commissioner shall be made in writing within 60 days of the date of this letter or within a longer period that may be allowed by the Information and Privacy Commissioner.

The address and contact information of the Information and Privacy Commissioner is as follows:

Office of the Information and Privacy Commissioner
2nd Floor, 34 Pippy Place
P. O. Box 13004, Stn. A
St. John’s, NL A1B 3V8

Telephone: (709) 729-6309
Facsimile: (709) 729-6500
Email: oipc@gov.nl.ca
In the event that you choose to appeal to the Trial Division, you must do so within 30 days of the date of this letter. Section 60 of the Act sets out the process to be followed when filing such an appeal.

Please be advised that a copy of our response to your request will be published on the Office of the Public Engagement’s website five business days after the response is mailed to you. If you have any further questions, please feel free to contact Brian Bennett, the Department’s Privacy Manager, at (709) 729-7007, or by email at BrianDBennett@gov.nl.ca.

Sincerely,

Bruce Cooper
Deputy Minister

/bb
/Encl.
Table of contents

1. Department of Health and Community Services Public Presentation: Western Memorial Regional Hospital Replacement Project 1

2. Newfoundland and Labrador Centre for Applied Health Research: Research synthesis: “Options for the Development of PET/CT Program in NL” 25

3. PET/CT System Planning Considerations: presentation made by Dr. George Mawko, Chief Physicist with the PET Program in Halifax, to the HCS PET/CT Steering Committee 29

4. TRIUMF: The Use of Positron Emission Tomography (PET) for Cancer Care Across Canada (excerpt) 61

5. Nova Scotia Wait Time Information – PET 74

6. Canadian Agency for Drugs and Technologies in Health – Report on PET Scanning 75


8. Canadian Association of Nuclear Medicine: Position Paper on PET 84

9. Alberta College of Physicians and Surgeons: Policies on PET 97

10. Newfoundland and Labrador Centre for Health Information: Compiled information Regarding Western Memorial Regional Hospital 99

11. Western Health Radiation Therapy Patient Projection 106

12. Stantec Western Memorial Regional Hospital Replacement Project Master Program – Appendix F: Feasibility Analysis of PET/CT and LINAC at the WMRH 107

13. Dr. H. Bliss Murphy Cancer Centre, Eastern Health: Radiation Treatment Data, 2012, Western Health 114

WESTERN MEMORIAL REGIONAL HOSPITAL
Replacement Project
Public Presentation

Wednesday, January 08\textsuperscript{th}, 2013
1. Health Capitol Infrastructure planning process;

2. Work completed to date;

3. Master Program – Bed Numbers (Preliminary);

4. What services are being planned and why;

5. Questions/Discussion
- Master and Functional programs were completed;
- Stantec Report – May 2012;
  - "Peer Review"
- Revised Master Program;
  - Stantec, March 2013
- Revised Functional Plan;
  - Was on track to be completed end of December 2013
- T&W's released the RFP for design work;
  - 2 packages: LTC facility and hospital.
• Comprehensive review of current services;
• Review of recent trends in utilization;
  – Current service patterns
• Needs of the current population;
• Needs of the projected population to be served;
  – Department of Finance projections
  – Medium scenario
  – 2026
• Best practice models in use in Canada.
Total population served by Western Health has decreased by 21% since 1986;

Projected that the population will decline a further 4% between 2012 and 2026;
- 78,543 in 2011; 75,362 in 2026

Patient volumes and acuity will increase;
- Due to the aging population;
- Age 55+ cohort used to project most future needs.
• With the changes in demographics, varying demands and requirements for health care at services at the new WMRH are expected:
  - Decreased demand for Pediatric and Obstetrical services;
  - Increased demand for conditions arising from chronic disease, e.g., diabetes, heart disease, stroke
  - Increased demand for select surgical services, e.g., Ophthalmology and Orthopedics;
  - Increased demand for home care and long term care services.
## Western Mem Reg Hospital Facility Inpatient

Monday, January 06, 2014

<table>
<thead>
<tr>
<th>Unit</th>
<th>Capacity</th>
<th>ALC Cases</th>
<th>Cases w/ LOS&gt;15</th>
</tr>
</thead>
<tbody>
<tr>
<td>2G OVERFLOW</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2O ORTHOPEDICS</td>
<td>17</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>3A MEDICINE.WMH</td>
<td>28</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>3B MEDICINE.WMH</td>
<td>28</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>3P PALLIATIVE CARE</td>
<td>8</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>4AB SURGERY.WMH</td>
<td>36</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>4C PSYCHIATRY.WMH</td>
<td>23</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>ALTERNATE LEVEL OF CARE 5TH FL</td>
<td>17</td>
<td>15</td>
<td>2</td>
</tr>
<tr>
<td>INTENSIVE CARE UNIT.WMH</td>
<td>8</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MATERNAL/NEWBORN</td>
<td>11</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>REHAB AT WMRH - 5TH FLOOR</td>
<td>8</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>WOMEN AND CHILDREN HEALTH</td>
<td>15</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td><strong>Summary</strong></td>
<td><strong>199</strong></td>
<td><strong>64</strong></td>
<td><strong>44</strong></td>
</tr>
</tbody>
</table>
- Place ALC patients either in Community Care or LTC programs;
  - Placing patients/clients in the most appropriate environments to receive services and the care that they need;
  - Community Care – back home with modifications and supports; adding in home care services;
  - LTC includes various types of care, i.e., personal care homes and LTC facilities;

- Increasing number of ALC patients with WH’s aging population.
Summary – Master Program: Newfoundland Labrador

- 160 acute care beds:
  - Plans for 80-85% occupancy to address surge
  - All single rooms
  - Universal – can swing to meet demand

- 100 new LTC beds on the campus:
  - Does not include the new 14-bed restorative care unit at the existing LTC facility, opened in Fall 2013
  - Recommended bed numbers may change when Functional Plan is finalized

- Based on most up-to-date utilization data
- All existing services will continue;
  - Exception of in-patient adolescent mental health services
- Some existing services will expand;
  - E.g., dialysis, chronic disease out-patient clinics
- Specialized (tertiary) services will remain in St. John’s;
  - E.g., Cardiac cath lab, Radiation therapy and PET scanner.
• Building a state-of-art facility, based on Canadian standards and best practices; with;
  – Expanded Community Care supports;
  – Expanded Long Term Care services.
• Recent research indicates that travel distances >40 minutes may influence type of breast surgery chosen to treat early cancer;
  – Other factors: age, stage of cancer, body image, surgeon’s preference.
  – CIHI and CPAC report pending
• Some province’s are starting to look at radiation therapy corridors;
  – “Hub and spoke” model.
Radiation Therapy

- NL is performing better than national benchmark of 9 out of 10 starting treatment in 28 days;
  - 9 out of 10 started within 25 days;
  - 28% started within 2 days;
  - 98% started within 28 days;
- National Wait Time Alliance gave the province an A+;
- Canadian model for cancer care:
  - Chemotherapy at remote sites;
  - Radiation therapy only at cancer centers.
- 4 LINAC machines at the Bliss Murphy Center;
- If NL was not meeting national benchmarks, additional resources would be required to provide quality care:
- Site of additional resource would be based on:
  - Anticipated utilization
  - Best practice models
  - Ability to recruit and retain specialized staff.
Radiation Therapy

- WH provides health services to 15% of the province’s total population;

In 2011/12:
- 1740 NL patients were referred to a Radiation Oncologist;
  - 270 patients that were diagnosed and treated in 2012 were from WH (15.5%);
- 1215 NL patients received radiation treatments;
  - 172 patients were from WH (14.2%)
  - +16 patient for 15.5%
172 patients from WH:

- projected to be 214 by 2026 (24.3% increase);
- Up to 20% would need to go to NCTRF for treatment – either complex or for brachytherapy;
- 140 (171 by 2026) patients could be eligible for treatment, if offered;
- Use only 35% of a LINAC's capacity;
  - 43% by 2026;
  - annual workload is typically 400 cases
- Recruitment and retention challenges anticipated.
Patient Referrals in 2009
• Original master and functional plans did not include radiation therapy services in Corner Brook;
• Only one site in Canada (SSM) with a single LINAC machine;
• Matched to a machine in Sudbury, 300 kms a way;
  – Patients can be transported to Sudbury the same day when machine experiences scheduled or unscheduled down time;
  – Radiation rate: 25%; Sudbury: 32%;
  – Catchment of 120,000; 350 to 400 cases;
• Started services in 2011; evaluation pending.
• Decision not to provide on-site in Corner Brook was not based on cost:
  – Rather, unproven model of a single LINAC machine.
  – May be a model of the future, if proven.

• Public discussions about cost:
  – Capitol cost of machine: $4M (10 years);
  – Bunker and support space: $3-4M.
  – Annual operating costs: $1M.
• Estimated 600 to 1200 scans annually for the province (2009, NLCAHR);
• 870 scans estimated for the province (2011, Triumph report);
• Nova Scotia does 2100 scans annually; 4 days/week.
• WHO recommends 2 PET scanners per 1 million population;
• ~43 PET scanners in Canada currently;
  – some are research only
  – Quebec needs 16 based on their population (WHO).
• BC, Manitoba, Saskatchewan and NS have a single PET scanner for clinical use only;
  - BC has additional PET scanner for research.
• Based on population, 130 scans would be for patients from WH;
  - 2 scans a week.
• Capitol costs : $2.5 to $4M;
• Operating costs: $2M.
• Original master and functional plans recommended DI be placed in a location that allows for future expansion.
Potential copyright material

If you wish to obtain a copy please contact the ATIPP Office at (709) 729-7072 or atippoffice@gov.nl.ca.
# Positron Emission Tomography

## Nova Scotia Wait Time Information (/)

**Diagnostic Tests (/categories-procedures/64049)**

### Positron Emission Tomography

<table>
<thead>
<tr>
<th>Wait Times</th>
<th>Trends</th>
</tr>
</thead>
</table>

#### What's This?

A Nuclear Medicine Scan is a test that uses a radioactive substance called a tracer to show how organs and tissues are working. For this procedure the tracer is injected into a vein. It travels through the patient's blood and settles into the organs and tissues. A scanner detects the amount of radiation given off by these tissues and can show abnormal concentrations or voids that may indicate the presence of cancer or inflammation. **Less**

#### Quick Links

- [Capital Health Diagnostic Imaging](http://www.chha.nshealth.ca/diagnostic-imaging)
- [Referral guidelines for physicians](http://www.car.ca/en/standards-guidelines/guidelines.aspx)

<table>
<thead>
<tr>
<th>Community</th>
<th>Hospital/Healthcare Centre</th>
<th>5 out of 10 patients wait less than</th>
<th>9 out of 10 patients wait less than</th>
<th>Average wait time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nova Scotia</td>
<td>All Healthcare Centres</td>
<td>22 days</td>
<td>38 days</td>
<td>24 days</td>
</tr>
<tr>
<td>Halifax</td>
<td>QEII Health Sciences Centre</td>
<td>22 days</td>
<td>38 days</td>
<td>24 days</td>
</tr>
</tbody>
</table>

---

Date Period: July 1 - September 30 2013

Data Source: DHA Diagnostic Imaging Department

Next Update: February 2014

---

Potential copyright material

If you wish to obtain a copy please contact the ATIPP Office at (709) 729-7072 or atippoffice@gov.nl.ca.
Potential copyright material

If you wish to obtain a copy please contact the ATIPP Office at (709) 729-7072 or atipoffice@gov.nl.ca.
Table 1
Number of Acute Care Hospitalizations to Western Memorial Regional Hospital by Regional Health Authority of Residence, 2012/13

<table>
<thead>
<tr>
<th>RHA of Residence</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>135 (1.9)</td>
</tr>
<tr>
<td>Labrador/Grenfell</td>
<td>114 (1.6)</td>
</tr>
<tr>
<td>Eastern</td>
<td>42 (0.6)</td>
</tr>
<tr>
<td>Western</td>
<td>6,635 (94.5)</td>
</tr>
<tr>
<td>Out of province/unknown</td>
<td>92 (1.3)</td>
</tr>
<tr>
<td>Total</td>
<td>7,018 (100)</td>
</tr>
</tbody>
</table>

Source: Clinical Database Management System (CDMS), 2012/13

Table 2
Number of Obstetric Hospitalizations to Western Memorial Regional Hospital by Regional Health Authority of Residence, 2012/13

<table>
<thead>
<tr>
<th>RHA of Residence</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>15 (2.5)</td>
</tr>
<tr>
<td>Labrador/Grenfell</td>
<td>5 (0.8)</td>
</tr>
<tr>
<td>Eastern</td>
<td>4 (0.7)</td>
</tr>
<tr>
<td>Western</td>
<td>568 (94.7)</td>
</tr>
<tr>
<td>Out of province</td>
<td>8 (1.3)</td>
</tr>
<tr>
<td>Total</td>
<td>600 (100)</td>
</tr>
</tbody>
</table>

Source: Clinical Database Management System (CDMS), 2012/13

Table 3
Number of Surgical Day Care Events to Western Memorial Regional Hospital by Regional Health Authority of Residence, 2012/13

<table>
<thead>
<tr>
<th>RHA of Residence</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>412 (4.0)</td>
</tr>
<tr>
<td>Labrador/Grenfell</td>
<td>280 (2.7)</td>
</tr>
<tr>
<td>Eastern</td>
<td>81 (0.8)</td>
</tr>
<tr>
<td>Western</td>
<td>9,476 (92.3)</td>
</tr>
<tr>
<td>Out of province/unknown</td>
<td>15 (0.1)</td>
</tr>
<tr>
<td>Total</td>
<td>10,264 (100)</td>
</tr>
</tbody>
</table>

Source: Clinical Database Management System (CDMS), 2012/13
Notes:

1. Analysis includes admissions to Western Memorial Regional Hospital Only.
2. This analysis reflects regional health authority of residence, not region of health care facility. Regional health authority of residence is based on individual’s residence code where present. In the absence of residence code, postal code was used to categorize the regional health authority of residence.
3. This analysis is broken down by hospitalization type which includes acute care and/or surgical day care episodes. The total number of hospitalizations is the sum of both acute care surgical day care episodes.
4. The number hospitalizations do not represent the number of unique individuals hospitalized; an individual may have had one or multiple hospitalization within the given fiscal year or across years.
5. Hospitalizations associated with obstetrics are derived using the ICD-10-CA coding classification system. Any associated ICD-10-CA code recorded within a discharge abstract for a hospitalization that is related to pregnancy, childbirth and the puerperium was included within the analysis for Table 2. The following ICD-10-CA codes were used to identify these hospitalizations:

- **Pregnancy, childbirth and the puerperium (O00 - O99)**
  - O00 to O08: Pregnancy with an abortive outcome.
  - O10 to O16: Oedema, proteinuria and hypertensive disorders in pregnancy, childbirth and the puerperium.
  - O20 to O29: Other maternal disorders predominately related to pregnancy.
  - O30-O48: Maternal care related to the fetus and amniotic cavity and possible delivery problems.
  - O60-O75: Complications of labour and delivery.
  - O85-O92: Complications predominately related to the puerperium.
  - O94-)99: Other obstetric conditions, not elsewhere classified.
Cumulative Total of Unique Episodes and Unique Patients for Western Memorial Regional Hospital  
(Diagnostic Imaging Excluded), by Regional Health Authority of Residence, 2012/13

<table>
<thead>
<tr>
<th>RHA of Residence</th>
<th>Total Unique Episodes n (%)</th>
<th>Unique Number of Patients n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>547 (3.2)</td>
<td>454 (3.8)</td>
</tr>
<tr>
<td>Lab/Grenfell</td>
<td>394 (2.3)</td>
<td>308 (2.6)</td>
</tr>
<tr>
<td>Eastern</td>
<td>123 (0.7)</td>
<td>95 (0.8)</td>
</tr>
<tr>
<td>Western</td>
<td>16111 (93.2)</td>
<td>11101 (92.8)</td>
</tr>
<tr>
<td>Out of province/Unknown</td>
<td>107 (0.63)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>Total</td>
<td>17282 (100)</td>
<td>11958 (100)</td>
</tr>
</tbody>
</table>

Source: Clinical Database Management System (CDMS), 2012/13
Number (percentage) of Acute Care Hospitalizations to Western Memorial Hospital by RHA of Residence, 2012/13

Number of Acute Care Hospitalizations

- 1-25
- 26-50
- 51-75
- 76-100
- 101-150

Out of Province

Residents of Western 6,635 (94.5%)

Source: Clinical Database Management System (CDMS), 2012/13, NL Centre for Health Information
Number (percentage) of Surgical Day Care Events to Western Memorial Hospital by RHA of Residence, 2012/13

Number of Surgical Day Care Events

- 1-100
- 101-200
- 201-300
- 301-400
- 401-500

Residents of Western 9,476 (92.3%)

Out of Province

- 15 (0.1%)
- 280 (2.7%)
- 412 (4.0%)
- 81 (0.8%)

Source: Clinical Database Management System (CDMS), 2012/13, NL Centre for Health Information
<table>
<thead>
<tr>
<th>Description</th>
<th>Historical</th>
<th>2017</th>
<th>2022</th>
<th>2026</th>
<th>14-Year Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2009 / 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2010 / 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2011 / 12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2012 / 13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age Cohort Used for Growth</td>
<td>Work load</td>
<td>5-Yr Growth</td>
<td>Work load</td>
<td>5-Yr Growth</td>
<td>Work load</td>
</tr>
<tr>
<td>Radiation Therapy</td>
<td>-</td>
<td>-</td>
<td>172</td>
<td>55+</td>
<td>191</td>
</tr>
</tbody>
</table>
Potential copyright material

If you wish to obtain a copy please contact the ATIPP Office at (709) 729-7072 or atippoffice@gov.nl.ca.
### POPULATION PROJECTIONS NEWFOUNDLAND AND LABRADOR

**Medium Scenario**

**Population by Five Year Age Groups**

1986 to 2026

**Western Health Authority**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>0-4</th>
<th>5-9</th>
<th>10-14</th>
<th>15-19</th>
<th>20-24</th>
<th>25-29</th>
<th>30-34</th>
<th>35-39</th>
<th>40-44</th>
<th>45-49</th>
<th>50-54</th>
<th>55-59</th>
<th>60-64</th>
<th>65-69</th>
<th>70-74</th>
<th>75-79</th>
<th>80-84</th>
<th>85-89</th>
<th>90+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>99,723</td>
<td>7,510</td>
<td>8,388</td>
<td>10,019</td>
<td>10,714</td>
<td>8,737</td>
<td>8,198</td>
<td>7,849</td>
<td>7,671</td>
<td>5,833</td>
<td>4,599</td>
<td>4,298</td>
<td>3,959</td>
<td>3,293</td>
<td>2,789</td>
<td>2,185</td>
<td>1,336</td>
<td>732</td>
<td>395</td>
<td>225</td>
</tr>
<tr>
<td>1987</td>
<td>98,874</td>
<td>7,161</td>
<td>8,101</td>
<td>9,660</td>
<td>10,437</td>
<td>8,815</td>
<td>8,190</td>
<td>7,899</td>
<td>7,676</td>
<td>6,240</td>
<td>5,795</td>
<td>4,202</td>
<td>3,939</td>
<td>2,963</td>
<td>2,249</td>
<td>1,500</td>
<td>1,758</td>
<td>781</td>
<td>401</td>
<td>223</td>
</tr>
<tr>
<td>1988</td>
<td>98,174</td>
<td>6,834</td>
<td>7,888</td>
<td>8,729</td>
<td>9,612</td>
<td>8,637</td>
<td>8,204</td>
<td>7,926</td>
<td>7,853</td>
<td>5,554</td>
<td>4,770</td>
<td>4,272</td>
<td>3,930</td>
<td>3,288</td>
<td>2,581</td>
<td>1,920</td>
<td>1,506</td>
<td>825</td>
<td>400</td>
<td>219</td>
</tr>
<tr>
<td>1989</td>
<td>97,877</td>
<td>6,530</td>
<td>7,709</td>
<td>8,914</td>
<td>9,330</td>
<td>8,267</td>
<td>7,979</td>
<td>7,824</td>
<td>7,807</td>
<td>6,737</td>
<td>5,605</td>
<td>4,354</td>
<td>3,905</td>
<td>3,436</td>
<td>2,862</td>
<td>2,288</td>
<td>1,606</td>
<td>825</td>
<td>400</td>
<td>219</td>
</tr>
<tr>
<td>1990</td>
<td>97,280</td>
<td>6,342</td>
<td>7,592</td>
<td>8,795</td>
<td>9,212</td>
<td>8,532</td>
<td>7,872</td>
<td>7,744</td>
<td>7,716</td>
<td>6,687</td>
<td>5,567</td>
<td>4,232</td>
<td>3,750</td>
<td>3,303</td>
<td>2,734</td>
<td>2,160</td>
<td>1,506</td>
<td>825</td>
<td>400</td>
<td>219</td>
</tr>
<tr>
<td>1991</td>
<td>96,804</td>
<td>6,103</td>
<td>7,265</td>
<td>8,446</td>
<td>8,968</td>
<td>8,342</td>
<td>7,696</td>
<td>7,623</td>
<td>7,570</td>
<td>6,675</td>
<td>5,509</td>
<td>4,150</td>
<td>3,652</td>
<td>3,210</td>
<td>2,642</td>
<td>2,073</td>
<td>1,506</td>
<td>825</td>
<td>400</td>
<td>219</td>
</tr>
<tr>
<td>1992</td>
<td>96,520</td>
<td>5,879</td>
<td>6,713</td>
<td>7,823</td>
<td>8,347</td>
<td>7,614</td>
<td>7,078</td>
<td>7,015</td>
<td>6,978</td>
<td>6,151</td>
<td>5,073</td>
<td>4,050</td>
<td>3,538</td>
<td>3,083</td>
<td>2,515</td>
<td>1,947</td>
<td>1,402</td>
<td>825</td>
<td>400</td>
<td>219</td>
</tr>
<tr>
<td>1993</td>
<td>95,368</td>
<td>5,561</td>
<td>6,040</td>
<td>7,605</td>
<td>8,320</td>
<td>7,164</td>
<td>6,671</td>
<td>6,608</td>
<td>6,578</td>
<td>5,782</td>
<td>4,796</td>
<td>3,710</td>
<td>3,163</td>
<td>2,710</td>
<td>2,162</td>
<td>1,614</td>
<td>1,170</td>
<td>825</td>
<td>400</td>
<td>219</td>
</tr>
<tr>
<td>1994</td>
<td>93,965</td>
<td>5,351</td>
<td>6,201</td>
<td>7,343</td>
<td>8,045</td>
<td>6,718</td>
<td>6,574</td>
<td>6,511</td>
<td>6,487</td>
<td>5,691</td>
<td>4,621</td>
<td>3,540</td>
<td>2,935</td>
<td>2,450</td>
<td>1,985</td>
<td>1,534</td>
<td>1,092</td>
<td>825</td>
<td>400</td>
<td>219</td>
</tr>
<tr>
<td>1995</td>
<td>92,467</td>
<td>5,040</td>
<td>5,950</td>
<td>7,065</td>
<td>6,774</td>
<td>6,258</td>
<td>6,253</td>
<td>6,205</td>
<td>6,187</td>
<td>5,399</td>
<td>4,332</td>
<td>3,257</td>
<td>2,662</td>
<td>2,217</td>
<td>1,762</td>
<td>1,317</td>
<td>973</td>
<td>825</td>
<td>400</td>
<td>219</td>
</tr>
<tr>
<td>1996</td>
<td>90,366</td>
<td>4,700</td>
<td>5,657</td>
<td>6,718</td>
<td>6,306</td>
<td>5,880</td>
<td>5,612</td>
<td>5,575</td>
<td>5,548</td>
<td>4,770</td>
<td>3,715</td>
<td>2,646</td>
<td>2,101</td>
<td>1,666</td>
<td>1,231</td>
<td>896</td>
<td>573</td>
<td>400</td>
<td>219</td>
<td></td>
</tr>
</tbody>
</table>

---

**Note:**

- The table above shows the projected population by five-year age groups from 1986 to 2026 for Newfoundland and Labrador.
- The data is presented in thousands.
- The projections are made for the medium scenario.
- The Economic and Statistics Branch, a division of the Department of Finance, provides this information.
In total there were 211 patients who received radiation treatment in 2012 from Western Region. Of these 211 patients 170 people were diagnosed with cancer in 2012 and received radiation treatment.

Of this 170 – 5 patients had Brachytherapy or SRS. The detailed postal code information on this group is below.

Profile of patients from Western Regional Health Authority who were diagnosed with cancer in 2012 and received Radiation Treatment in 2012.

70 were women and 100 were men. The mean age of people receiving radiation was $M = 62.3$ years with a range in age from 10 to 88 years. For the entire group, the mean driving time from post code of residence to Western Memorial Hospital was $M = 66.6$ minutes (0 minutes to 310 minutes) and the mean number of kilometers from post code of residence to Western Memorial Hospital was 81.7km (0km to 284km).

Distance (km) and Driving Time (minutes) from Post Code of Residence to Western Memorial Hospital

<table>
<thead>
<tr>
<th>Distance (km) and Driving Time (minutes) from Post Code of Residence to Western Memorial Hospital</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>KM from Home Post Code to Western Memorial</td>
<td>170</td>
<td>0</td>
<td>284</td>
<td>81.7</td>
</tr>
<tr>
<td>Drive Time from Home Post Code to Western Memorial</td>
<td>170</td>
<td>0</td>
<td>310</td>
<td>66.6</td>
</tr>
</tbody>
</table>

Utilizing 45 minutes as a cut-point, 82 or 48.2% of 170 cases receiving radiation lived within a 45 minute driving time of Western Memorial Hospital and 88 or 51.8% lived greater than a 45 minute driving time from Western Memorial Hospital.

Driving Time to Western Memorial Hospital (< > 45 minutes)

<table>
<thead>
<tr>
<th>Drive Time</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 45 Minutes</td>
<td>82</td>
<td>48.2</td>
</tr>
<tr>
<td>Greater than 45 Minutes</td>
<td>88</td>
<td>51.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung</td>
<td>47</td>
</tr>
<tr>
<td>Prostate</td>
<td>29</td>
</tr>
<tr>
<td>Breast</td>
<td>19</td>
</tr>
<tr>
<td>Head and Neck</td>
<td>11</td>
</tr>
<tr>
<td>Rectum</td>
<td>9</td>
</tr>
<tr>
<td>Stomach</td>
<td>8</td>
</tr>
<tr>
<td>Endometrium</td>
<td>7</td>
</tr>
<tr>
<td>CNS</td>
<td>6</td>
</tr>
<tr>
<td>Cervix</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>29 (Skin, pancreas, kidney, bladder, hematology etc.)</td>
</tr>
</tbody>
</table>
Potential copyright material

If you wish to obtain a copy please contact the ATIPP Office at (709) 729-7072 or atipoffice@gov.nl.ca.